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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/574,368

01/16/2007

Olaf Gawer

2642.025

5847

23405

7590

05/31/2011

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EXAMINER

ROST, ANDREW J

ART UNIT

PAPER NUMBER

3753

MAIL DATE

DELIVERY MODE

05/31/2011

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/574,368	GAWER ET AL.	
	Examiner	Art Unit	
	ANDREW ROST	3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 March 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2006 and 15 March 2011 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the amendment filed 3/15/2011. Claims 1 and 4-6 are currently amended. No claims are newly added. No claims are canceled.

Presently, claims 1-6 are currently pending.

2. The Notice of Abandonment dated 4/16/2010 has been withdrawn in view of the Petition Decision dated 3/31/2011 in which the Petition under the unintentional provisions of 37 CFR 1.137(b), filed 3/15/2011, to revive the instant application was granted.

Response to Arguments

3. Applicant's arguments with respect to claims 1-6 have been considered but are moot in view of the new ground(s) of rejection. It is considered that the newly applied reference to Wieres (5,782,402) addresses applicant's concerns and claim language relating to the newly added pressure cascade in a sequential operating mode until a high vacuum pressure stage is achieved features.

4. Since new grounds of rejection were necessitated by applicant's amendment, the instant Office action is made final.

Drawings

5. The drawings were received on 3/15/2011. These drawings are not acceptable.

6. The drawings are taken to be the drawings submitted with the international document WO 2005/040452 A1.

7. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 19 and 20. (The drawings filed 3/15/2011 would overcome the objections to the drawings noted in the Office action dated 10/2/2009. However, the amendment to the claims dated 3/15/2011 raises new issues with respect to the drawings. Therefore, the drawings submitted on 3/15/2011 are not acceptable.)

8. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the prevacuum pump system is activated in a second operating state as a backing pump arrangement of the high-vacuum pump system (claim 5) in combination with the high-vacuum pump system comprises a support pump (claim 5) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered

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and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Double Patenting

9. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

10. Claims 1-6 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-6 of copending Application No. 12/753,175. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

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11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Wieres (5,782,402).

Regarding claim 1, Wieres discloses a vacuum chamber system having a pre-vacuum chamber (cleaning chamber 2 is able to receive a product through a charging door 7), a pre-vacuum pump system (17) connected by a first selectively activatable valve arrangement (18) to the pre-vacuum chamber and a high-vacuum pump system (14, 15) connected to the pre-vacuum chamber by a second selectively activatable valve arrangement (13) wherein the pre-vacuum pump system is operated to lower the pressure within the chamber (2) and then the high-vacuum pump system is operated to further lower the pressure within the chamber (2) (col. 5, lines 51-65). It is considered that the recitation of "for a vacuum coating facility for coating substrates moved through the vacuum coating facility" is taken as an intended use recitation and is not given patentable weight as long as the apparatus of the prior art is capable of performing the intended use.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

15. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wieres (5,782,402) in view of further in view of Myneni (5,703,281) and further in view of Hiesinger (2,931,561).

In regards to claim 2, Wieres discloses the pre-vacuum pump system to have a plurality of pumps in series but does not expressly disclose the types of pumps that constitute the pre-vacuum pump system. The Wieres reference does not disclose a backing pump to be a rotary slide-valve pump. However, Myneni teaches the use of a rotary pump (12) to be used as a backing pump in order to provide a pumping down to 10^{-1} to 10^{-2} Torr (col. 3, lines 26-29). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the backing pump of the Wieres reference as a rotary pump as taught by Myneni in order to provide a specific pump to pump the chamber down to 10^{-1} to 10^{-2} Torr. The Wieres reference

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does not disclose the main mechanical pump to be a Roots pump. However, Hiesinger teaches the use of a Roots type mechanical pump (10) as a main pump in order to maintain a high compression ratio for the evacuating fluid (col. 2, lines 4-6). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the main pump of the Wieres reference as a Root's type mechanical pump as taught by Hiesinger in order to maintain a high compression ratio for the evacuating fluid.

16. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wieres (5,782,402) in view of Myneni (5,703,281).

In regards to claim 3, Wieres discloses a sluice system having a pre-vacuum sluice chamber (2) in which a pump system is connected wherein a plurality of selectively activatable valves are arranged between the pumps and the vacuum chamber. The Wieres reference does not disclose the high-vacuum system to have a turbo-molecular pump with a backing pump arrangement. However, Myneni teaches a high-vacuum pump system having a turbo-molecular pump (14) with a backing pump (12) in order to provide pumping of a chamber to achieve lower ultimate pressures in an ultra high vacuum system (col. 2, lines 15-19). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the high-vacuum system of the Wieres reference as having a turbo-molecular pump with a backing pump as taught by Myneni in order to provide specific pumps to achieve lower ultimate pressures within the chamber.

17. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wieres (5,782,402) in view of Wenk (5,254,169).

Wieres discloses a sluice system having a pre-vacuum sluice chamber (2) in which a pre-vacuum pump system and a high-vacuum pump system are connected through a plurality of selectively activatable valves. The Wieres reference does not disclose the pre-vacuum pump system is selectively connected to the pre-vacuum sluice chamber in a first state and operates as a backing pump arrangement to the high vacuum pump system in a second state wherein the high vacuum pump system has a support pump and the main pump of the pre-vacuum pump system being in parallel to the support pump. However, Wenk discloses a first pumping system (pumps 16, 16a) with support pumps (mechanical pumps 17, 18) that are connected with a second pumping system (mechanical pumps 17a, 18a) through a valve (valve in the line as shown in figure 2) wherein the second pumping set is operable to pump the chamber (28) through a selectively activatable valve and pump (14, 15) or can be in fluid communication with the main pumps of the first pumping system (16a) wherein the second pumping system (17a, 18a) are located in parallel to the support pumps (17, 18) in order to provide diverse pumping of the chamber (28, shown in figure 2). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to arrange and connect the high-vacuum system to the pre-vacuum pump system through a bypass line with a valve and providing a support pump in

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communication with the high vacuum system in parallel to the main pump as taught by Wenk in order to provide diverse pumping of the chamber.

Conclusion

18. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANDREW ROST whose telephone number is (571)272-2711. The examiner can normally be reached on 7:00 - 4:30 M-Th and 7:00 - 12:00 Fridays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Hepperle can be reached on 571-272-4913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. R./
Examiner, Art Unit 3753

/Craig M Schneider/
Primary Examiner, Art Unit 3753